

Killat discloses a method of preparing ammonium polyamidoamines comprising (1) contacting a linear polyamidoamine with an α , β -ethylenically unsaturated carboxylic compound to form a substituted polyamidoamine, (2) contacting the substituted polyamidoamine with a polyamine having at least 2 secondary and/or primary amine moieties to form a branched polyamidoamine bearing a pendant amine moiety and (3) contacting the branched polyamidoamine with an epihalohydrin to form pendant curable ammonium moieties on the branched polyamidoamine (see col.1, lines 47-59).

As can be seen from Col.5, lines 32-35, the polyamidoamine bearing pendant carboxylic groups (formed after step 1 above) is reacted with an alkylenediamine or polyalkylene polyamine (step 2). The amount of alkylenediamine or polyalkylene polyamine employed is that amount which is sufficient to suppress the cross-linking of polyamidoamine that can occur through the pendant carboxylic moieties (see col.5, lines 39-43). The pendant carboxylic groups as seen in the formula in col.5, lines 16-20 are thus reacted further. In step 3, all or a portion of the pendant amine moieties of the branched polyamidoamine to ammonium form, an agent is used to form ammonium moieties (see col.6, lines 22-30).

The objective of Killat is to provide polymers that have reproducible characteristics and sufficient activity that ascertains a controlled cross-linking reaction so that the formation of gel is prevented (see col.1, lines 29-33). The prepared ammonium polyamidoamine may be used as wet strength additive in the production of paper, flocculants and dimension stabilizers for textiles, tie coat adhesives etc (see col.1, lines 60 to col.2, line 2).

Killat is silent on providing wet strength agents or resins imparting increased softness to paper, which is an objective of the present invention.

Killat is further silent on providing cationic nitrogen-containing polymers having hydrophobic side-chain substituents as set out in claims 19 and 25. On the contrary, Killat provides polyamidoamine having pendant amine and curable ammonium moieties, i.e. side-chains of amine and curable ammonium moieties. These side-chains of amine and ammonium moieties are hydrophilic in nature due to the hydrophilic properties of the amine and ammonium moieties.

Killat is also silent on the production of tissue paper involving addition of the resins or agents as defined in claim 19 and tissue paper comprising said resins or agents as defined in claim 25.

In contrast to the quarternized side chain of Killat referred to in the Office Action under paragraph 3, the claimed invention involves cationic (quaternary) nitrogen-containing polymers in the linear polymer before the hydrophobic side chains are attached. In view of the above facts, Killat teaches away from the present invention as defined in claims 19 and 25. Thus, one of ordinary skill in the art would not arrive at the present invention from Killat.

For the reasons set forth above, the present invention is both novel and non-obvious in view of the cited document. The Applicants respectfully request that the Examiner reconsider the rejection of claims 19-29 and find the claims in condition for immediate allowance.

In accordance with Section 714.01 of the M.P.E.P., the following information is presented in the event that a call is deemed desirable by the Examiner:

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Respectfully submitted,

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